

WHAT IS CLAIMED IS:

1. A global real-time transmission and control system of an audio/video (A/V) and digital information, suitable for use by a control side to track an aircraft, the global real-time transmission and control system comprising:

5 an aircraft A/V transmitting system, installed on the aircraft, and used to obtain an A/V and digital data information including a 3-dimensional position information, an audio information, or video information, wherein the A/V and digital data information can be down-linked and a video control signal transmitted from the control side can also be received for dynamically taking the A/V and digital data information;

10 a satellite transceiver unit, used to transmit the A/V and digital data information to the control side in real-time and receive the video control signal, wherein the satellite transceiver unit also provide an additional function to perform a bi-directional communication with the control side;

15 an aircraft automatic tracking and A/V system, installed on a base, used to receive the down-linked A/V and digital data information and track a position of the aircraft, also and transmit the A/V and digital data information; and

20 a central control station system, installed at the control side at a control center, used to receive a relative information transmitted from the aircraft automatic tracking and A/V system, and to dynamically control the aircraft A/V transmitting system to obtain the A/V and digital data information through the aircraft automatic tracking and A/V system,

wherein the aircraft automatic tracking and A/V system and the central control station system can be installed at predetermined locations or be integrated to be a mobile system.

2. The global real-time transmission and control system of claim 1, wherein the aircraft A/V transmitting system comprises:

a microprocessing unit, used to process a plurality of input signals, so as to control a plurality of peripheral units connected with the microprocessing unit, wherein the peripheral units comprises:

a surface positioning unit, used to at least precisely measure the position of the aircraft with respect to a ground surface;

a latitude, longitude, and height correction unit, used to further precisely measure the position of the aircraft by latitude, longitude, and height;

a video unit, used to at least take an A/V signal from the aircraft;

an A/V down-link unit, provide a first route for transmitting the A/V and digital data information to the control side; and

a bi-directional audio and digital communication unit, providing a second route for transmitting the A/V and digital data information to the control side and receiving the video control signal issued by the control side.

3. The global real-time transmission and control system of claim 2, wherein the video unit includes a video device that can be selected by the control side to take the A/V and digital data information.

4. The global real-time transmission and control system of claim 2, wherein the video unit includes a plurality of video devices distributed on the aircraft at predetermined locations and the video unit can have multiple video devices simultaneously taking the A/V and digital data information.

5. The global real-time transmission and control system of claim 2, wherein the latitude, longitude, and height correction unit includes a differential correction signal sub-carrier receiving unit to precisely correct the height of the aircraft.

6. The global real-time transmission and control system of claim 2, wherein the
5 surface positioning unit comprises a GPS or a GLONASS for measuring the position of the aircraft.

7. The global real-time transmission and control system of claim 2, wherein the bi-directional audio and digital communication unit includes a GSM (global system for mobile telecommunication) or a satellite communication system for communicating with
10 the control side.

8. The global real-time transmission and control system of claim 7, further comprising a satellite antenna device so as to perform the bi-directional communication through the GSM or the satellite communication system.

9. The global real-time transmission and control system of claim 2, wherein the
15 A/V down-link unit comprises a microwave transmitting unit.

10. The global real-time transmission and control system of claim 1, wherein the aircraft automatic tracking and A/V system comprises:

a microprocessor automatic-tracking servo control unit, connected to a plurality of peripheral units to process a plurality of input signals, so as to according control the
20 peripheral units, the peripheral units comprising:

a tracking unit, used to receive the A/V and digital data information transmitted from the aircraft A/V transmitting system;

an audio and digital bi-directional communicating unit, used to communicate with the aircraft A/V transmitting system;

a tracking operation mode controller, used to select one type of tracking operation mode; and

a mechanical servo unit, used to drive the tracking unit to track the aircraft.

11. The global real-time transmission and control system of claim 10, wherein the
5 tracking unit comprises:

a microwave tracking antenna, to track the aircraft; and

a microwave receiver, to receive an output of the microwave tracking antenna,
and to analyze out the A/V and digital data information into the 3-dimensional position,
the audio signal or the video signal.

10 12. The global real-time transmission and control system of claim 11, wherein the
mechanical servo unit comprise a motor servo control unit to drive the microwave antenna.

13. The global real-time transmission and control system of claim 10, wherein the
tracking operation mode controller comprises a switch between an automatic operation
15 mode and a hand operation mode.

14. The global real-time transmission and control system of claim 10, wherein the
audio and digital bi-directional communicating unit comprises a GSM system.

15. The global real-time transmission and control system of claim 1, wherein the
central control station system comprises:

20 a computer system, connected to the aircraft automatic tracking and A/V system
and also connected to a plurality of peripheral units, the peripheral units comprising:

an outward communication unit, connected an external receiver for transmitting
the A/V and digital data information;

an aircraft information tracking network; and

a recording unit, used to record the flight rout of the aircraft.

16. The global real-time transmission and control system of claim 15, wherein the outward communication unit comprises a remote terminal video transmission unit, to transmit the A/V and digital data information to the external receiver.

5 17. The global real-time transmission and control system of claim 15, wherein the outward communication unit comprises satellite and GSM audio system.

18. The global real-time transmission and control system of claim 15, wherein the aircraft information tracking network can communicate with an external user through a satellite or GSM system.

10 19. The global real-time transmission and control system of claim 1, wherein the aircraft A/V transmitting system is installed in a pod of the aircraft.

20. The global real-time transmission and control system of claim 1, wherein the satellite transceiver unit comprises a video and digital antenna and an audio and digital antenna.

15 21. A salvaging system with a global real-time transmission and control system, suitable for use by a rescuing aircraft to track and rescue a being-rescued aircraft, the salvaging system comprising:

a bi-directional automatic-tracking A/V and digital communicating and control system, installed between being-rescued aircraft and the rescuing aircraft, so as to allow
20 the rescuing aircraft to automatically track being-rescued aircraft, and actively obtain an A/V and digital data information about an actual scene occurring at being-rescued aircraft; and

a transmission system, installed between being-rescued aircraft and the rescuing aircraft, such that the rescuing aircraft can transport at least a rescuer to being-rescued aircraft for proceeding a salvaging action.

22. The salvaging system of claim 21, wherein the transmission system comprises:

a first exit door, located at being-rescued aircraft;

a second exit door, located at the rescuing aircraft;

an affixing system, used to allow the rescuing aircraft to land on being-rescued aircraft at the predetermined position; and

a close-space passing route, used to connect being-rescued aircraft and the rescuing aircraft between the first exit door and the second exit door, whereby the rescuer can enter being-rescued aircraft, wherein an air pressure in the close-space passing route is adjusted to match the a pressure of the cabin.

23. The salvaging system of claim 22, wherein the affixing system comprises a buffering device, used to reduce collision effect when the rescuing aircraft lands on being-rescued aircraft.

24. The salvaging system of claim 22, wherein the affixing system used a suction force to affix the rescuing aircraft onto being-rescued aircraft.